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To: Global Command and Control System Sites

From: Inter-National Research Institute, Inc.

Subject: Changes Made in Global Command and Control System, Version 2.2
HP Operating System, Version 2.3.0.3

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The GCCS HP Kernel, Version 2.2.0.3 software (whether loaded using the bootable clean-load DAT, or the OS Upgrade segment), includes several features with significant user or administrator implications:

1. **HP TDBM Master and "/etc/nsswitch.conf" HP OS Patch** -- The new kernel includes the appropriate OS patches from HP to enable the /etc/nsswitch.conf functionality for hostname resolution. This functionality exists for GCCS 2.1 (and 2.2) on Solaris. On HP's in the 2.1 series, if DNS was active, all hostnames resolved via DNS, and the /etc/hosts file was completely ignored. This meant that a user configuring, say, an Mdx channel to a given offsite machine, was forced to enter the fully-qualified DNS hostname of that machine, which was often too long for the average hostname field in UB. This limitation was the reason why HP machines were not recommended to be Tdbm Masters.

Note: Because of the new nsswitch.conf file's ability to override DNS with locally-maintained hostname aliases, HP's may now be used as Tdbm Masters, as well as Tdbm clients, in GCCS 2.2.

2. **SAInstaller Reserved Diskspace** -- The SAInstaller (both HP & SOLARIS) now uses the "SegDescrip/Hardware" file in each segment to determine how much disk space to "reserve" for that segment. This accounts for the new "Free Diskspace" fields in the SAInstaller. The "UNIX Actual" field lists how much space is actually available on the partition. The "Not Reserved" field indicates how much of that space has not been reserved by the various segments (specifically, it is actual free space, minus the sum of the differences in each segment (on that partition) between the SegDescrip/Hardware file reserved amount and the space used in the segment's home directory).

3. **Multiple TDBM's on the Same LAN** -- The standard GCCS implementation is to have a single Tdbm master per LAN, with other machines on that LAN as Tdbm clients. This significantly reduces track management difficulties. The UB software will, however, support multiple Tdbm's on the same LAN, as configured by the System Configuration option in SysAdm. Anomalies resulting from this non-standard configuration are possible, such as interference in the Raw Data Windows on comms channels; but no serious problems have been observed. UB does require, however, that each Tdbm Master have access to its own global data (/h/data/global/UB).

Note: If a site is establishing multiple Tdbm masters on the same LAN, USING THE SAME EMSEVER, the site will have to configure NFS mounting manually so as to provide this required separation of data.

4. **UB Printer Configuration** -- A new capability has been added to allow the UB printer configuration software to use an EXISTING printer that has already been configured in UNIX by something besides UB (e.g. EM_PRINTER, SAM, etc.). The functionality is linked to a checkbox in the edit window of a UB printer (Config Printers from the SysAdmin menus). The checkbox is labeled, "Use Existing Local UNIX printer", and if it is checked, UB will NOT try to generate a printer with the name given, but rather assumes that such a printer already exists and merely prepares UB to use it. If, however, the box is NOT checked, UB will recreate a printer with the name given in the edit window, removing an existing printer by that name, if one exists.

Gen Broadcast -- The ability to enable or disable the UB Gen Broadcast function has been added to the SysAdmin menu. A Gen Broadcast will transmit all tracks (that pass the filtering criteria), including Link and raw Elint, in the context of an ASCII GOLD message, interpretable ONLY by another UB machine. See the User Guide for more description. Formerly, broadcast of type "Gen" could be added by the user, but due to the danger of high volume of broadcasted data, the Gen capability must now be enabled by the system administrator at sites that require the Gen Broadcast functionality.

5. **New User Role Capability** -- This version of UB includes Role-Based track management restriction capabilities. Users belonging to the default role, GCCS_Default, (likely including all existing users) are able to edit/add/delete/xmit tracks, and are also able to modify Elint Configuration.

If there is a need for UB users with restrictions on track database management or on Elint Configuration, the system administrator must create and export a new role with the appropriate permissions, as follows:

- a. Log in as secman.
- b. Double-click the Roles icon.
- c. Add a new role (see Export Roles in the Unified Build 3.0.1.6G System Administrator's Guide). Under the permissions section, check the Track and ElintConfig selections appropriately (Tracks: V=View-only, no editing; ElintConfig: E=Edit, allow editing).
- d. Export that role to all Tdbm clients (see Export Roles in the Unified Build 3.0.1.6G System Administrator's Guide).
- e. Double-click the Security icon.

f. Add a new user. In the “Role” field, select the newly-added role from the pick-list.

The user created in Step f will have access as defined in Step c.

Finally, it is important to understand the relationship between roles and segments that add menu-bar options. (Note: This does not affect segments using the Icon Launch Window.) The GCCS_DEFAULT, SA_DEFAULT, and SSO_DEFAULT roles are always given full permission to all menu items, including those from segments loaded after initial system configuration. Additionally, when new Roles are created, they are by default given permission to use all menu items. However, if Roles (other than the DEFAULTs) already exist when a menu-modifying segment is loaded, these Roles will, by default, NOT have permission to use the new menu options associated with that segment. The Role(s) must be edited (then likely exported) after the new segment load and permission granted, if these Roles require access to the new menu items.

WARNING: DO NOT attempt to create different roles for the System Administrator or Security Account Group.

Use the sysadmin and secman users provided with the software to access the needed functions.

6. Remote SAInstaller Segment Installation -- In SEGMENT INSTALLER window, when manually entering install device name using OTHER selection in SELECT MEDIA window, always use Berkeley device (e.g., /dev/rmt/1mbn). Do not use any other device (e.g., /dev/rmt/1mn).
7. Remote Printing in Solaris -- Before attempting to print remotely, use the EM Printer facility (printer icon from sysadmin) option B (“Make the Print Server Able to Accept Network Print Jobs”) on the system with the local printer attached.

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